

What is claimed is:

1. An apparatus, comprising:
 - a converting unit receiving a voice signal and performing at least one selected from among analog to digital conversion and digital to analog conversion on the voice signal;
 - a first processor receiving the voice signal from said converting unit, storing a plurality of procedures, the procedures conforming to predetermined standards of a plurality of voice communication modes, the plurality of voice communication modes including a selected mode, said first processor performing the stored procedure corresponding to the selected mode to cause the voice signal to comply with the predetermined standard corresponding to the selected mode, the selected mode being a mode selected from at least a voice over Internet protocol mode, a voice over digital subscriber line mode, and a voice over multi-service broadband networks mode;
 - a digital tone generating unit storing a plurality of sources of tones for phone functions, storing tones corresponding to the plurality of voice communication modes, generating at least one tone corresponding to the selected mode;
 - a multiplexer receiving and multiplexing the at least one tone from said digital tone generating unit and the processed voice signal from said first processor, and outputting the multiplexed signal to said converting unit;
 - a second processor confirming the selected mode and outputting information identifying the confirmed selected mode to said digital tone generating unit and to said first processor;
 - a relay switch receiving an off signal from said second processor and interrupting a central

office phone line when a predetermined code is selected, the predetermined code corresponding to the voice communication modes including digital network services, and maintaining an on state when a general central office phone digit is selected;

a third processor being in communication with said second processor, supporting communication during transmission of asymmetric digital subscriber line data, said third processor removing generated noise; and

an analog front end being in communication with said third processor, supporting matching of an asymmetric digital subscriber line, and enabling bi-directional dual communication of the asymmetric digital subscriber line data.

2. The apparatus of claim 1, with said first processor setting a default mode to be one mode from among the plurality of voice communication modes.

3. The apparatus of claim 2, with the default mode being determined in dependence upon a call type most commonly used.

4. The apparatus of claim 1, said first processor corresponding to a voice digital signal processor, said third processor corresponding to an asymmetric digital subscriber line digital signal processor, the apparatus corresponding to a composite voice service terminal.

5. A method, comprising:

2 performing an operation for hook-on;
3 detecting at least a first selected digit;
4 when the first selected digit corresponds to a general central office phone number,
5 performing a general telephone call through a general telephone line;
6 when the first selected digit corresponds to a predetermined code, switching a relay on the
7 general phone line, the predetermined code corresponding to digital network services;
8 when said switching is performed, detecting a second selected digit selected after the first
9 selected digit, the second selected digit corresponding to selected digital network services selected
10 from among a plurality of digital network services, the plurality of digital network services
11 including at least a voice over Internet protocol service, a voice over digital subscriber line service,
12 and a voice over multi-service broadband networks service;
13 when the second selected digit corresponds to the voice over Internet protocol service,
14 loading voice over Internet protocol firmware and making a voice over Internet protocol call;
15 when the second selected digit corresponds to the voice over digital subscriber line service,
16 loading voice over digital subscriber line firmware and making a voice over digital subscriber line
17 call; and
18 when the second selected digit corresponds to the voice over multi-service broadband
19 networks service, loading voice over multi-service broadband networks firmware and making a
20 voice over multi-service broadband networks call.

1 6. The method of claim 5, further comprising:

2 when the second selected digit corresponds to the voice over Internet protocol service,
3 outputting a voice over Internet protocol tone from a digital tone generating unit to a
4 corresponding user side channel through a multiplexer, said outputting confirming the selected
5 digital network services.

1 7. The method of claim 5, further comprising:

2 when the second selected digit corresponds to the voice over digital subscriber line service,
3 outputting a voice over digital subscriber line tone from a digital tone generating unit to a
4 corresponding user side channel through a multiplexer, said outputting confirming the selected
5 digital network services.

1 8. The method of claim 5, further comprising:

2 when the second selected digit corresponds to the voice over multi-service broadband
3 networks service, outputting a voice over multi-service broadband networks tone from a digital
4 tone generating unit to a corresponding user side channel through a multiplexer, said outputting
5 confirming the selected digital network services.

1 9. The method of claim 5, further comprising:

2 when the second selected digit corresponds to the voice over Internet protocol service,
3 setting a voice digital signal processor and a second processor to a voice over Internet protocol
4 mode and restarting the voice digital signal processor and the second processor.

1 10. The method of claim 5, further comprising:

2 when the second selected digit corresponds to the voice over digital subscriber line service,
3 setting a voice digital signal processor and a second processor to a voice over digital subscriber
4 line mode and restarting the voice digital signal processor and the second processor.

1 11. The method of claim 5, further comprising:

2 when the second selected digit corresponds to the voice over multi-service broadband
3 networks service, setting a voice digital signal processor and a second processor to a voice over
4 multi-service broadband networks mode and restarting the voice digital signal processor and the
5 second processor.

1 12. An apparatus, comprising:

2 a converting unit receiving a voice signal and performing at least one selected from among
3 analog to digital conversion and digital to analog conversion on the voice signal;

4 a first processor receiving a voice signal from said converting unit when digital network
5 services are selected, said first processor storing a plurality of procedures according to
6 predetermined standards of a plurality of voice communication modes, the plurality of voice
7 communication modes including a selected mode, said first processor performing the stored
8 procedure corresponding to the selected mode causing the voice signal to comply with the
9 predetermined standard corresponding to the selected mode when the digital network services are

selected;

a digital tone generating unit generating at least one tone corresponding to the selected mode and outputting the at least one tone to said converting unit;

a second processor confirming the selected mode and outputting information identifying the confirmed selected mode to said digital tone generating unit and to said first processor;

a relay receiving an off signal from said second processor and turning off to interrupt a central office phone line when a predetermined code is selected, the predetermined code corresponding to the voice communication modes including digital network services, and maintaining an on state when at least one general central office phone digit is selected, the predetermined code being distinguishable from the at least one general central office phone digit;

a third processor being in communication with said second processor, supporting communication during transmission of asymmetric digital subscriber line data, said third processor removing generated noise; and

an analog front end being in communication with said third processor, supporting matching of an asymmetric digital subscriber line, and enabling bi-directional dual communication of the asymmetric digital subscriber line data.

13. The apparatus of claim 12, further comprising:

a multiplexer receiving and multiplexing the at least one tone from said digital tone generating unit and the processed voice signal from said first processor, the selected mode being a mode selected from a voice over Internet protocol mode, a voice over digital subscriber line

5 mode, a voice over multi-service broadband networks mode.

1 14. The apparatus of claim 12, with said first processor setting a default mode to be one
2 mode from among the plurality of voice communication modes.

1 15. The apparatus of claim 14, with the default mode being determined in dependence
2 upon a call type most commonly used.

1 16. The apparatus of claim 12, said first processor corresponding to a voice digital
2 signal processor, said third processor corresponding to an asymmetric digital subscriber line digital
3 signal processor, the apparatus corresponding to a composite voice service terminal.